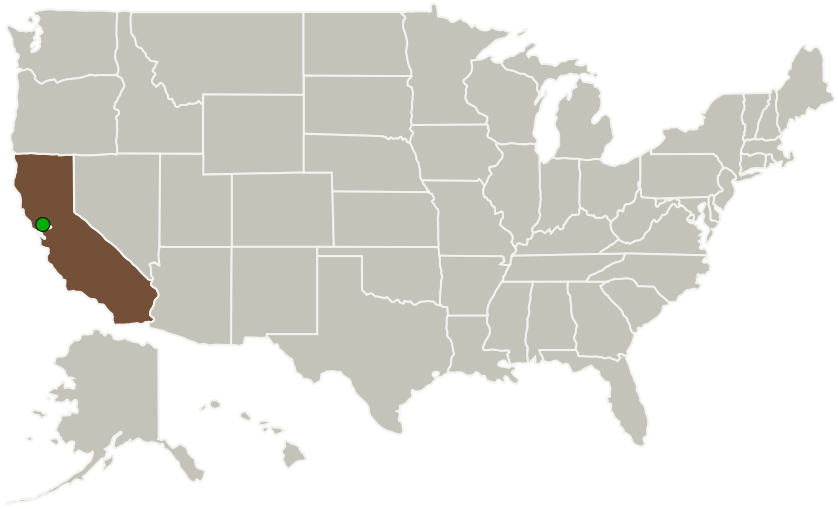
Small Probe Reentry System, Phase I

Completed Technology Project (2011 - 2012)

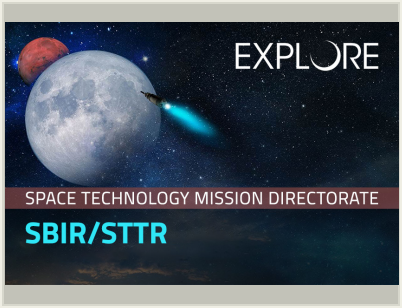
Project Introduction

Global Aerospace Corporation (GAC), and its research partner, Cal Poly San Luis Obispo (CPSLO), will develop an integrated Small Probe Reentry System (SPRS) for low Earth orbit (LEO) small satellite Earth reentry missions. The SPRS delivers the small probe to a targeted reentry, protects it from the harsh atmospheric reentry environment, slows it down so that it can land without damage to its payload, and announces its position for recovery. This technology will be applicable to very small satellites that could carry 1 kg sample return payload will experience a low-temperature rise and a low deceleration load.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Global Aerospace Corporation	Lead Organization	Industry	Irwindale, California
Ames Research Center(ARC)	Supporting Organization	NASA Center	Moffett Field, California
California Polytechnic State University-San Luis Obispo(Cal Poly)	Supporting Organization	Academia	San Luis Obispo, California



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Primary U.S. Work Locations
California

Project Transitions

February 2011: Project Start

February 2012: Closed out

Closeout Documentation:

- Final Summary Chart*(https://techport.nasa.gov/file/138510)*

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Global Aerospace Corporation

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Kerry T Nock

Co-Investigator:

Kerry Nock

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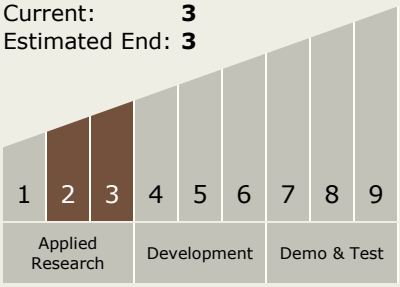
Technology Maturity (TRL)

Start: **2**
Current: **3**
Estimated End: **3**



Technology Areas

Primary:

- TX09 Entry, Descent, and Landing
  - TX09.1 Aeroassist and Atmospheric Entry
    - TX09.1.1 Thermal Protection Systems

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System